CHAPTER 16: ACCOUNTING FOR INTERNAL USE SOFTWARE

16.1 INTRODUCTION

16.1.1 Purpose

The purpose of this chapter is to provide accounting standards for internal use software used by the U.S. Department of Agriculture (USDA). These standards are based on the Statement of Federal Financial Accounting Standards (SFFAS) Number 10, Accounting for Internal Use Software.

16.1.2 Scope

This chapter establishes accounting standards for the cost of software developed or obtained for internal use. These include the cost of software used to operate an entity's programs, software used to produce the entity's goods and to provide services, and software that is developed or obtained for internal use and subsequently provided to other federal entities with or without reimbursement. The standards in this chapter may be applied to the total cost of the software or, when appropriate, to individual components or modules.

16.1.3 Effective Date

The provisions of this statement are effective for reporting periods that begin after September 30, 2000. Section 9.2.4 of FASM, Chapter 9: Property, Plant, and Equipment related to internally developed software is rescinded upon this standard's issuance. Agencies may continue their current accounting practices for internal use software for accounting periods beginning before October 1, 2000.

16.2 ACCOUNTING STANDARD FOR INTERNAL USE SOFTWARE

16.2.1 Definitions

Internal use software means software that is purchased from commercial vendors "off-the-shelf", internally developed, or contractor-developed solely to meet the entity's internal or operational needs. This definition of internal use software encompasses the following:

Commercial off-the-shelf (COTS) software: COTS software refers to software that is ready for use with little or no changes.

Internally developed software refers to software that employees of the entity are actively developing, including new software and existing or purchased software that are being modified with or without a contractor's assistance.

Contractor-developed software refers to software that a federal entity is paying a contractor to design, program, install, and implement, including new software and the modification of existing or purchased software.

16.2.2 Software Development Phases

Software's life-cycle phases include planning, development, and operations. This standard provides a framework for identifying software development phases and processes to help isolate the capitalization period for internal use software that the federal entity is developing. The following table illustrates the various software phases and related processes. The steps within each phase of internal use software development may not follow the exact order shown below. This standard should be applied on the basis of the nature of the cost incurred, not the exact sequence of the work within each phase.

Preliminary design phase	**Software development phase**	**Post-implementation/ Operational phase**
Conceptual formulation of alternatives	Design of chosen path, including software configuration and software interfaces	Data conversion
Evaluation and testing of alternatives	Coding	Application maintenance
Determination of existence of needed technology	Installation to hardware	
Final selection of alternatives	Testing, including parallel processing phase	

In the *preliminary design phase,* federal entities will likely do the following:

a. Make strategic decisions to allocate resources between alternative projects at a given time. For example, should programmers develop new software or direct their efforts toward correcting problems in existing software?

b. Determine performance requirements (i.e., what it is that they need the software to do).

c. Invite vendors to perform demonstrations of how their software will fulfill a federal entity's needs.

d. Explore alternative means of achieving specified performance requirements. For example, should a federal entity make or buy the software? Should the software run on a mainframe or a client server system?

e. Determine that the technology needed to achieve performance requirements exists.

f. Select a vendor if a federal entity chooses to obtain COTS software.

g. Select a consultant to assist in the software's development or installation.

In the *software development phase,* federal entities will likely do the following:

a. Use a system to manage the project.

b. Track and accumulate life-cycle cost and compare it with performance indicators.

c. Determine the reasons for any deviations from the performance plan and take corrective action.

d. Test the deliverables to verify that they meet the specifications.

In the *post-implementation/operational phase,* federal entities will likely do the following:

a. Operate the software, undertake preventive maintenance, and provide ongoing training for users.

b. Convert data from the old to the new system.

c. Undertake post-implementation review comparing asset usage with the original plan.

d. Track and accumulate life-cycle cost and compare it with the original plan.

16.2.3 Software Used as General PP&E

Entities should capitalize the cost of software when such software meets the criteria for general property, plant, and equipment (PP&E). General PP&E is any property, plant, and equipment used in providing goods and services.

16.2.4 Capitalizable Cost

For internally developed software, capitalized cost should include the full cost (direct and indirect cost) incurred during the software development stage. Such cost should be limited to cost incurred after

a. management authorizes and commits to a computer software project and believes that it is more likely than not that the project will be completed and the software will be used to perform the intended function with an estimated service life of 2 years or more and

b. the completion of conceptual formulation, design, and testing of possible software project alternatives (the preliminary design stage).

Such costs include those for new software (e.g., salaries of programmers, systems analysts, project managers, and administrative personnel; associated employee benefits; outside consultants' fees; rent; and supplies) and documentation manuals.

For COTS software, capitalized cost should include the amount paid to the vendor for the software. For contractor-developed software, capitalized cost should include the amount paid to a contractor to design, program, install, and implement the software. Material internal cost incurred by the federal entity to implement the COTS or contractor-developed software and otherwise make it ready for use should be capitalized.

16.2.5 Data Conversion Cost

All data conversion costs incurred for internally developed, contractor-developed, or COTS software should be expensed as incurred, including the cost to develop or obtain software that allows for access or conversion of existing data to the new software. Such cost may include the purging or cleansing of existing data, reconciliation or balancing of data, and the creation of new/additional data.

16.2.6 Cutoff for Capitalization

Costs incurred after final acceptance testing has been successfully completed should be expensed. Where the software is to be installed at multiple sites, capitalization should cease at each site after testing is complete at that site.

16.2.7 Multi-use Software

The cost of software that serves both internal uses and stewardship purposes ("multi-use software") should be accounted for as internal use software (e.g., a global positioning system used in connection with national defense activities and general operating activities and services).

16.2.8 Integrated Software

Computer software that is integrated into and necessary to operate general PP&E, rather than perform an application, should be considered part of the PP&E of which it is an integral part and capitalized and depreciated accordingly (e.g., airport radar and computer-operated lathes). The aggregate cost of the hardware and software should be used to determine whether to capitalize or expense the costs.

16.2.9 Bundled Products and Services

Federal entities may purchase software as part of a package of products and services (e.g., training, maintenance, data conversion, re-engineering, site licenses and rights to future upgrades and enhancements). Federal entities should allocate the capitalizable and non-capitalizable cost of the package among individual elements on the basis of a reasonable estimate of their relative fair values. Costs that are not susceptible to allocation between maintenance and relatively minor enhancements should be expensed.

16.2.10 Capitalization Thresholds

Each federal entity should establish its own threshold as well as guidance on applying the threshold to bulk purchases of software programs (e.g., spreadsheets, word-processing programs, etc.) and to modules or components of a total software system. That guidance should consider whether period

cost would be distorted or asset values understated by expensing the purchase of numerous copies of a software application or numerous components of a software system and, if so, provide that the collective cost should be capitalized.

USDA has established a capitalization threshold of $100,000 for internal use software.

16.2.11 Enhancements

The acquisition cost of enhancements to existing internal use software (and modules thereof) should be capitalized when it is more likely than not that they will result in significant additional capabilities. For example, in an instance where the federal entity adds a capability or function to existing software for making ad hoc queries, the cost would be capitalized.

Enhancements normally require new software specifications and may require a change of all or part of the existing software specifications as well. The cost of minor enhancements resulting from ongoing systems maintenance should be expensed in the period incurred. Also, the purchase of enhanced versions of software for a nominal charge are properly expensed in the period incurred.

Cost incurred solely to repair a design flaw or to perform minor upgrades that may extend the useful life of the software without adding capabilities should be expensed.

16.2.12 Impairment

Impairment should be recognized and measured when one of the following occurs and is related to post-implementation/operational software and/or modules thereof:

a. the software is no longer expected to provide substantive service potential and will be removed from service or

b. a significant reduction occurs in the capabilities, functions, or uses of the software (or a module thereof).

If the impaired software is to remain in use, the loss due to impairment should be measured as the difference between the book value and either (1) the cost to acquire software that would perform similar remaining functions (i.e., the unimpaired functions) or, if that is not feasible, (2) the portion of book value attributable to the remaining functional elements of the software. The loss should be recognized upon impairment, and the book value of the asset reduced accordingly. If neither (1) nor (2) above can be determined, the book value should continue to be amortized over the remaining useful life of the software.

If the impaired software is to be removed from use, the loss due to impairment should be measured as the difference between the book value and the net realizable value (NRV), if any. The loss should be recognized upon impairment, and the book value of the asset reduced accordingly. The NRV, if any, should be transferred to an appropriate asset account until such time as the software is disposed of and the amount is realized.

16.2.13 Developmental Software

In instances where the managers of a federal entity conclude that it is no longer more likely than not that developmental software (or a module thereof) will be completed and placed in service, the related book value accumulated for the software (or the balance in a work in process account, if applicable) should be reduced to reflect the expected NRV, if any, and the loss recognized. The following are indications of this:

a. Expenditures are neither budgeted nor incurred for the project.

b. Programming difficulties cannot be resolved on a timely basis.

c. Major cost overruns occur.

d. Information has been obtained indicating that the cost of developing the software will significantly exceed the cost of COTS software available from third party vendors; hence, management intends to obtain the product from those vendors instead of completing the project.

e. Technologies that supersede the developing software products are introduced.

f. The responsibility unit for which the product was being created is being discontinued.

16.2.14 Amortization

Software that is capitalized pursuant to this standard should be amortized in a systematic and rational manner over the estimated useful life of the software. The estimated useful life used for amortization should be consistent with that used for planning the software's acquisition.

For each module or component of a software project, amortization should begin when that module or component has been successfully tested. If the use of a module is dependent on completion of another module (s), the amortization of that module should begin when both that module and the other module (s) have successfully completed testing.

Any additions to the book value or changes in useful life should be treated prospectively. The change should be accounted for during the period of the change and future period. No adjustments should be made to previously recorded amortization. When an entity replaces existing internal use software with new software, the unamortized cost of the old software should be expensed when the new software has successfully completed testing.

16.2.15 Disclosures

The disclosures required by SFFAS No. 6, paragraph 45, for general PP&E are applicable to general PP&E software. Thus, for material amounts, the following should be disclosed in the financial statements regarding the software:

a. The cost, associated amortization, and book value.

b. The estimated useful life for each major class of software.

c. The method (s) of amortization.

16.2.16 Implementation

Cost incurred prior to the initial application of this statement, whether capitalized or not, should not be adjusted to the amounts that would have been capitalized, had this statement been in effect when those costs were incurred. However, the provisions of this statement concerning amortization and impairment should be applied to any unamortized cost capitalized prior to the initial application of this statement that continue to be reported as assets after the effective date.